

Secretary Bird	<i>Sagittarius serpentarius</i>
Vulturine Guinea Fowl	<i>Acryllium vulturinum</i>
Yellow-necked Spurfowl	<i>Francolinus leucoscepus</i>
Wattled Crane	<i>Grus carunculatus</i>
Red-knobbed Coot	<i>Fulica cristata</i>
Three-banded Plover	<i>Charadrius tricollaris</i>
White-headed Plover	<i>Vanellus albiceps</i>
Speckled Pigeon	<i>Columba guinea</i>
Bare-faced Go-away Bird	<i>Corythaixoides personata</i>
Ground Hornbill	<i>Bucorvus cafer</i>
Black Cuckoo-Shrike	<i>Campephaga phoenicea</i>
Straight-crested Helmet Shrike	<i>Prionops plumata</i>
Wattle-eye Flycatcher	<i>Platysteira cyanea</i>
Bare-eyed Thrush	<i>Turdus tephronotus</i>
Red-billed Oxpecker	<i>Buphagus erythrorhynchus</i>

(Received 15 April 1977)

SUNBIRDS NESTING INSIDE BUILDINGS AT THE KENYA COAST

P.L. Britton & H.A. Britton

The interesting habit of sunbirds (Nectariniidae) attaching their nests to buildings is well known, though it has seldom been documented. It is especially prevalent at the Kenya coast.

Unless stated otherwise, the data incorporated are taken from E.A.N.H.S. nest record cards prepared by Mavis Heath, Maia Hemphill or ourselves.

OBSERVATIONS

Mackworth-Praed & Grant (1960) mention the nesting of a Mouse-coloured Sunbird *Nectarinia veroxii* in a deserted hut at Malindi, probably referring to one of two clutches taken by C.F. Belcher in May 1943. Two further clutches taken near Mombasa lack details of the nest site, but all 1972-1977 records refer to nests attached to buildings. Three clutches (producing two broods) were laid in a nest hanging from a horizontal wire attached to a mosquito net at Watamu in May-July 1976. A pair with two nests attached to a dead creeper hanging from the roof of a sitting-room at Malindi reared two broods (three clutches) in May-July 1976 and two broods in April-June 1977; and a brood had been reared in the adjacent garage in July 1975. Other sites were a wire inside a bedroom at Shimoni (twice), a wire on a verandah at Mtwapa, and a creeper tendril in the porch of an office at Tiwi.

Jackson (1938) mentions three Uganda nests of the Olive Sunbird *N. olivacea* inside or under the eaves of thatched outhouses where the nest was attached to a pendant strip of bark rope. Belcher collected a clutch from a nest attached to a wire hanging from the roof inside a disused grass hut near Mombasa in May 1940. Eight out of nine recent clutches are likely to refer to the same pair, nesting in two neighbouring houses at Mtwapa. Eggs were laid on 2 October 1974, 23 April 1975, 20 June 1975, 17 August 1975, 20 April 1976, c. 6 August 1976, 2 October 1976, and in April 1977. All but one were successful, incubation period 12-14 days, fledging period 13-17 days. The first two nests were attached to a vertical string supporting a frame mosquito net, which was lowered each afternoon and night; and the next three

clutches were laid in two nests on a ceiling 'mobile' in the adjacent children's room. Following this last attempt, which was unsuccessful, a nest was built in only two days in the children's bedroom of the neighbouring house, attached to a string of a mosquito net; and the next nest was in a similar site, but in the previously used house. Finally, in April-May 1977, a brood flew from a nest on the mosquito net in the second house, where building began in early April, only a few days after an incomplete nest on the mosquito net in the first house had been abandoned. If all clutches were laid by the same female, they represent exceptional fecundity, as do some of the Mouse-coloured Sunbird records.

A Collared Sunbird *Anthreptes collaris* nest hanging from a rafter in a bedroom at Shimoni in July 1972 is the only record of this association in this species, for which there are 68 nest sites described on cards, eight of them from the Kenya coast. Jackson (1938) gives no records of this association for the Scarlet-chested Sunbird *N. senegalensis*, though he described it as a confiding bird which appreciates the proximity of habitations. Of 42 nest sites described on cards, four are on buildings in northern Tanzania: twice on rafters projecting beyond a house wall at Arusha (J.S.S. Beesley) and twice on a verandah near Mwanza (D.L. Ebbels). One of the few breeding records of Hunter's Sunbird *N. hunteri* in East Africa refers to an unsuccessful nest attached to an electric flex above the bar at Voi Safari Lodge (Lack 1976). This association is evidently incipient in Amethyst Sunbirds *N. amethystina* at the coast, where five out of six nests were in trees or shrubs (not always exotic) alongside buildings at Shimoni.

Cheke (1976) described the nesting of a Variable Sunbird *N. venusta* inside a bungalow at Tiwi. He saw only the indistinct female, and was apparently unaware that this represents an unlikely extension of known breeding range since he makes no mention of plumage details in support of the record. It is listed for the Shimba Hills in an anonymous publication available at the gate of the Shimba Hills National Reserve; but R.A.M. McVicker (pers. comm.), who probably knows the birds of the Shimba Hills better than anybody, taking a special interest in the vocalizations of sunbirds, doubts its occurrence there or elsewhere in coastal Kenya south of Lamu. The white-bellied race *albi-ventris* is common in acacia at Manda and Lamu, but a search of the definitive literature shows that there is no proper evidence of the occurrence of the yellow-bellied *falkensteini* at or near the coast. Despite the fact that Cheke (*in litt.* to Dr J.F. Monk) feels certain of this identification we feel that the record is unacceptable on present evidence.

DISCUSSION

A number of African species utilize the eaves of buildings as nest sites, often as an alternative to a cliff or similar site which may be unavailable in the near vicinity. There is, however, no shortage of natural attachment points for sunbird nests, suggesting that the explanation of this utilization by sunbirds should be looked for in terms of an improved success rate in the artificial site. In East Africa, the African Pied Wagtail *Motacilla alba vidua* almost invariably nests in the roof of a building or in a boat or motor vehicle (26 out of 28 sites described on cards). This wagtail has a special relationship with man which may perhaps be compared with that of the Robin *Erithacus rubecula* in Britain, and Jackson (1938) considers it "without exception the tamest, most confiding and most charming and friendly bird in Central Africa". Both species nest in holes, and Lack (1953: 86) points out that Robins which select artificial sites are doing nothing odd, in that holes provided by man are as good as, but no better than, natural holes. It may be significant that both the Robin and the British Pied Wagtail *M. a. yarrellii*

use artificial sites only exceptionally (Witherby *et al.* 1940), whereas the African Pied Wagtail does so habitually in East Africa.

In his extensive experience, the late Capt. C.R.S. Pitman (*in litt.*) found that 85 per cent. of nests of the smaller African passerines suffer predation by reptiles, small rodents and other non-human predators; and many more nests are washed out by heavy rains. Thatched roofs often harbour rodents and reptiles but many artificial sites are dry and relatively free of predators. The breeding season of the coastal sunbirds discussed is prolonged, with records in all months except February-March; but there is an evident peak in the wettest months of April-June, which follow the dry, hot months of December-March. Laying peaks in May, which is the wettest month, with over 250 mm recorded in most years, and as much as 1043 mm in May 1922. Few eggs or young (of all families) which we find in May survive these downpours.

Sunbirds are attracted to the vicinity of buildings by the planting of flowering shrubs, and it is noteworthy that hummingbirds (Trochilidae) have a similar habit of nesting in buildings in parts of the New World (P.C. Lack *in litt.*). It seems likely that this habit developed primarily as a means of escaping heavy rainfall by building nests under a roof outside a building, or in its incipient form, merely using a wall for shelter from the prevailing wind or wind-blown rain. On the Kenya coast, many cottages to-let and holiday homes are empty during the wet off-season months, and there is frequently free access for small birds through wire mesh. At times, an empty cottage becomes occupied while the bird has eggs or young so that the bird is forced to tolerate the presence of humans or desert the nest. Regular nesting in an occupied house probably began as a forced co-existence after such a vacant period, but may develop into a highly successful symbiotic relationship when the human occupants actively protect the nesting birds in return for the pleasure derived from their presence.

REFERENCES

- CHEKE, R.A. 1976. Notes on a nesting female Variable Sunbird. *Bulletin of the British Ornithologists' Club* 96: 5-8.
- LACK, D. 1953. *The life of the Robin*. London: Penguin.
- LACK, P.C. 1976. Nesting of Hunter's Sunbird. *EEANHS Bulletin* 1976: 49.
- WITHERBY, H.F., JOURDAIN, F.C.R., TICEHURST, N.F. & TUCKER, B.W. 1940. *The handbook of British birds*. London: Witherby.

(Received 9 February 1977, additions made 27 June 1977)

WEIGHTS OF BIRDS IN WESTERN AND COASTAL KENYA: A COMPARISON

P.L. Britton

Weights of birds are used with increasing frequency in studies of bird migration, energetics and ecology. Comparatively few published data are available for African species - systematists have used less variable parameters such as wing-length. Any recorded variation in the weight of an individual bird is likely to result from a complex interaction of several variables, notably breeding and moult cycles, migration and the diurnal rhythm associated with weight loss at night and feeding activity. Within any wide-ranging species, weights are likely to vary both geographically and altitudinally, though the